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DENISON MINES LIMITED
ANNUAL REPORT 1977



DENISON MINES LIMITED ANNUAL REPORT, 1977

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Cover: Spectacular sunset silhouettes geological crew mapping the Quintette Coal property in northeast British Columbia.

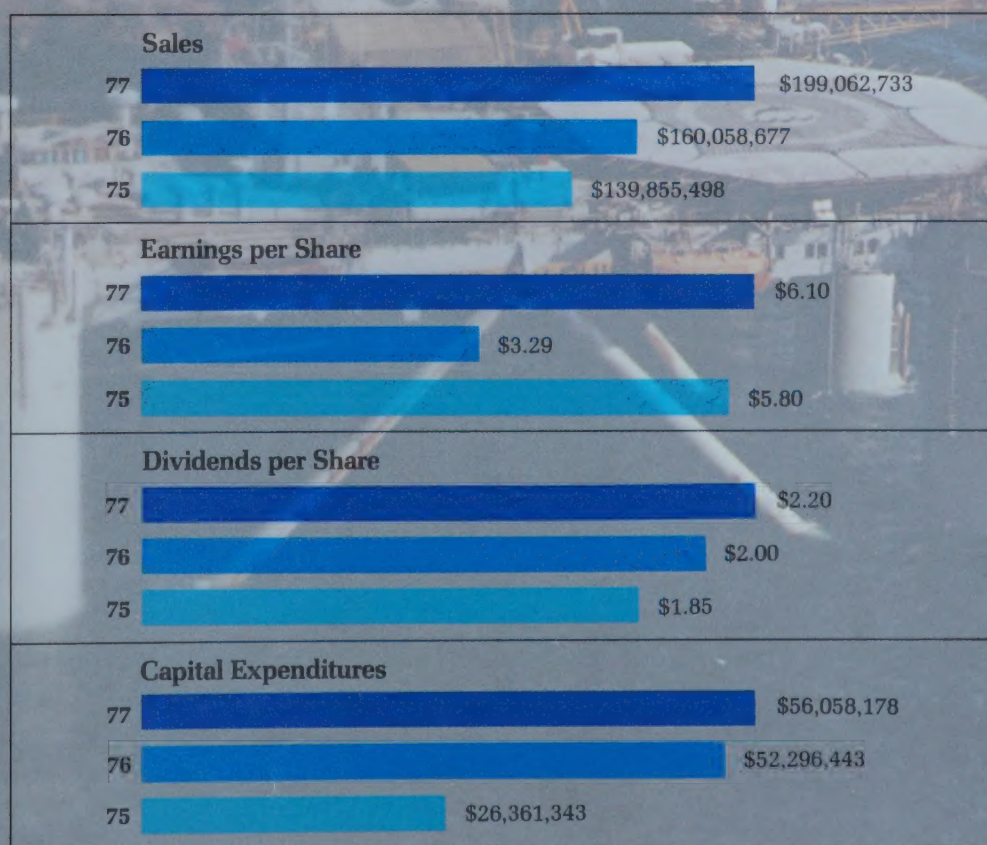
Following page: Test oil, produced from the Casablanca No. 1 discovery well, is transferred via flexible hose, from the platform "Bideford Dolphin" to the tanker "San Marcial".



A native to the Quintette property.

HIGHLIGHTS

- ☐ Net earnings in 1977 increased 85% to \$6.10 per share, the highest in the Company's history.
- ☐ Ontario Hydro contracts to buy 126 million pounds of uranium oxide during the period 1980 to 2011.
- ☐ Greek Government approves Prinos oil field development plan.
- ☐ Successful long-term oil production test established in the Mediterranean Sea, offshore Spain.
- ☐ Feasibility of Saxon metallurgical coal project confirmed and Ruhrkohle group increased its interest in Saxon Coal Limited to 30%.
- ☐ Uranium exploration programs substantially expanded in conjunction with joint venture partners.



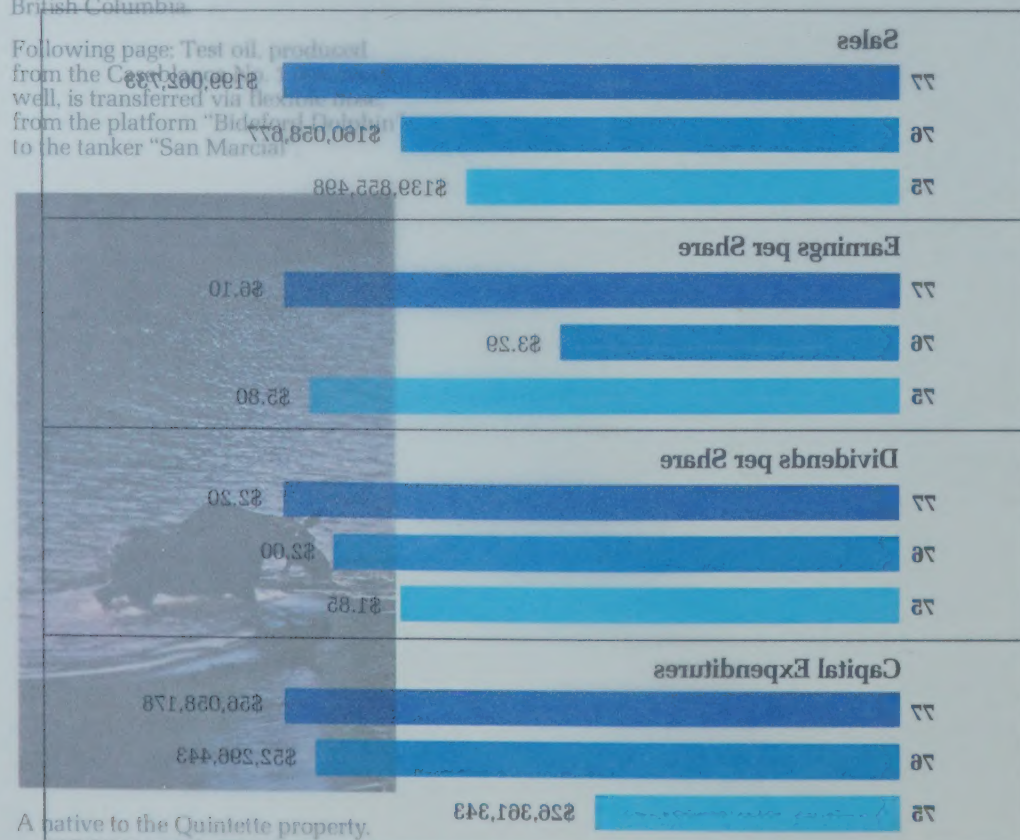
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Cover: Spectacular sunset silhouettes geological crew mapping the Quintette Coal property in northeast British Columbia.

Following page: Test oil, produced from the Centennial well, is transferred via flexible hose from the platform "Bideford Chablon" to the tanker "San Marcial".





DIRECTORS' REPORT

A number of initiatives taken by your Company came to fruition in the closing weeks of the year to make 1977 the year of greatest accomplishment in our corporate history. This is reflected in part by the fact that earnings in 1977 were the highest ever achieved. More significant, however, is the foundation laid during the year upon which to build growth, profitability and financial stability for your Company in the years ahead.

The events referred to include the agreement signed in December, 1977, to provide 126,000,000 pounds of uranium oxide to Ontario Hydro during the period 1980 to 2011. The contract, which is conditional on Provincial Government ratification by February 28, 1978, entails mutual benefits for Hydro, Denison shareholders and Ontario consumers of electric power. It is expected that Ontario Hydro will always be purchasing below the prevailing world price throughout the life of the contract.

Fulfilling the contract will require a major expansion of Denison's plant and mine facilities at Elliot Lake to achieve mining and processing rates of 5,000,000 tons of ore annually by 1985, with construction proceeding by stages. The expansion will create employment for Ontario workers in the area, as well as in Canadian industries which will manufacture and install equipment and provide materials.

Ontario Hydro will advance moneys for the capital costs of the expansion, including an initial advance of \$25 million, and Denison will repay the funds over the delivery period. In addition, mining areas have been designated and reserved for fulfillment of deliveries and Denison's Elliot Lake operating properties and facilities will be security for the funds advanced. Denison's existing export contracts, together with this commitment of a major part of its reserves to the long-term needs of Ontario, ensure the full development of the Denison mine in close co-operation with Ontario Hydro.

Government of Greece approval of plans for development of the Prinos oil field in the Aegean Sea was a second major event occur-

ring in December. The approval represents a significant step forward for this project and sets the stage for our move, with our partners, into the commercial development of a proven oil field of substantial proportions.

Financial—In 1977 sales were at a record level and earnings were the highest since the Company began producing uranium 20 years ago. The improvement is largely the result of an increase in shipments of uranium together with increased revenue from oil and gas operations. Earnings of Lake Ontario Cement Limited for the year were also higher.

Consolidated net earnings of \$27,878,009 are equal to \$6.10 per share, an increase of 85% from consolidated net earnings of \$15,043,214, or \$3.29 a share, for the year ended December 31, 1976. Total sales of \$199,062,733 were up from \$160,058,677 in 1976 and are more than triple the sales level of 1972.

The balance sheet of your Company reflects the continuing emphasis on major programs to build and broaden the foundation for potential future growth. Since 1973, when the first phase of expansion was started at Elliot Lake, the Company has invested more than \$146 million in laying this foundation.

Throughout this period of heavy capital expenditures, the dividend rate has been increased from \$1.40 a share paid in 1974 to \$2.20 paid in 1977 with the quarterly rate being increased to 60 cents a share from 50 cents in the 1977 third quarter.

Uranium—Production in 1977 totalled 4,001,000 pounds, an increase of 29% over 1976. This increase is a reflection of the expansion of the facilities at Elliot Lake and improved efficiency. Most shipments during the year were to Japanese electric power companies. By mutual agreement, delivery of 1,000,000 pounds of uranium oxide to Spanish customers has been rescheduled over the period 1978 to 1982.

Our Japanese customers have been taking delivery within Canada while negotiations on nuclear safeguards agreements continue between the Governments

of Japan and Canada. The Canadian Government has not issued export permits since the end of 1976, but it is expected that export of uranium to Japan will resume early in 1978.

Oil and Gas—The oil and gas division continued to grow and in 1977 the completion of drilling and development programs increased natural gas sales which, together with higher prices for oil and gas, resulted in a substantial revenue improvement from Canadian production.

Also gratifying is the excellent progress being made in the two principal overseas projects—offshore Spain in the Mediterranean Sea and in the Aegean Sea off the coast of Greece. Extensive production testing has been underway on the Spanish offshore project with a view to the installation of permanent production equipment. A three-year development program designed to bring the Prinos oil field in the Aegean Sea to production has been approved by the Government of Greece.

Coal—Feasibility studies were completed on two large-scale metallurgical coal projects. Technical and commercial presentations relating to the Quintette property were made to the Japanese steel industry. The Japanese have asked for further discussions based on a modified concept for development of Quintette which is estimated to contain 2.8 billion tons of high-grade coal in place.

Detailed study of the Saxon property demonstrated both technical and economic feasibility of mining the 500 million tons of metallurgical coal estimated to be in place. The good quality of this coal will make it attractive to the world steel industry.

Outlook—Your Company's operations are characterized by two features. Firstly, although engaged in a broad range of mining, manufacturing and financial activities, our main thrust is in the discovery, production and marketing of energy resource materials. Secondly, through these activities, we have developed a strong international orientation.

Our outlook and concern therefore, for 1978 and future years,



John Kostuik
President

C. H. Frame
Executive Vice-President,
Mining Operations

Stephen B. Roman
Chairman of the Board

C. D. Parmelee
Vice-President,
Corporate Affairs

E. B. McConkey
Vice-President,
Finance

continue to focus on world demand for energy resource materials and the domestic and international climate affecting their production and marketing. We have reason for optimism. Most projections suggest that world demand for these materials will remain strong for some considerable future period.

However, against a world-wide background of difficult economic and business conditions which are improving all too slowly, the industrial nations of the free world are operating well below capacity and the minerals industry in particular is contending with persistent surpluses and depressed prices.

In Canada, what can fairly be described as an economic crisis is being aggravated by political ferment over national unity. This dangerously preoccupies the nation's leaders to the point where efforts to find real solutions to our serious economic problems are being neglected.

In some respects, the formidable difficulties we find facing us have no precedent in Canada. They include: a national unemployment rate of 8.5%—highest since the Depression; an inflation rate which is escalating again; stagnating national productivity; and escalating government budget deficits; all of which aggravate our mounting international debt, our worsening balance of payments and our declining currency value.

It is our conviction that many of these current economic difficulties arise from undue socialistic intervention by government in private sector affairs. Regretfully, the Federal Government has consistently failed to recognize that beyond "something to live on" Canadians must have "something to live for" if we are to achieve our destiny. The dignity of honest, productive employment from coast to coast is the basic desire of Canadian men and women; not the continuing stigma of welfare handouts of various kinds which debilitate the national and individual will and damage our credibility internationally.

The remedy to our present difficulties lies in realizing the potential for individual enterprise. In Canada, individual initiative throughout the private sector has a long and successful record of fulfilling the aspirations of Canadians and of nurturing the economic vitality of the country. Rather than increasing their presence in everyday life, governments should be exploring ways of limiting and reducing their role and influence, thereby freeing and stimulating the dynamic forces of private enterprise.

On our part, as one of Canada's rapidly-growing companies, we recognize our responsibility to build a strong organization that can provide stable employment and wide opportunities for our person-

nel, bring a fair return to our shareholders and, as a viable and healthy corporation, contribute significantly to the overall well-being of Canadians.

We wish to express our sincere appreciation to all employees of the Company for their dedicated efforts and to our shareholders for their continuing support.

On behalf of the Board of Directors

Stephen B. Roman,
Chairman and
Chief Executive
Officer.

John Kostuik,
President and Chief
Operating Officer.

Toronto, Canada
January 13, 1978.



URANIUM

In a year highlighted by concerns with energy requirements, the Denison uranium mine at Elliot Lake continued its satisfactory progress towards attaining full production from its expanded 7,100 tons per day facilities.

At the close of 1977, outstanding contracts (including the contract with Ontario Hydro) called for the delivery of a total of 199,000,000 pounds of uranium oxide. The schedule of deliveries is such that production at Elliot Lake to meet these commitments will extend to the year 2011. These contracts are with utilities in the Province of Ontario, Japan and Spain.

The expansion program of Denison's Elliot Lake uranium operations, initiated in 1973, is showing the beneficial results expected. The 29% increase in production reflects the ability of Elliot Lake to operate at the expanded level. The 7,100 tons daily milled rate was achieved in the latter part of the year on a regular basis.

Higher throughput substantially improves the efficiency of the mine and allows for future lower grade ore extraction. Efficiency continues to be emphasized through efforts to train skilled miners and tradesmen, introduction of new equipment and improvements in the working environment and in mining methods.

Detailed engineering for further long-term expansion continued throughout the year, the goal being the fullest possible utilization of the Denison ore areas. A key element in this plan, already in effect, was the decision to rehabilitate the No. 1 shaft, which provides access to pillar areas and the upper conglomerate beds in the northwest portion of the mine.

Preliminary detailed engineering has been completed for an expansion of the existing mill to 12,000 tons per day. Plans also include additional ventilation openings through the ore zones, conveyors and underground crushing facilities and an increase in the hoisting capacity of the No. 2 shaft. Denison is thus preparing to increase its capacity to supply uranium.

Engineering studies to investigate the rehabilitation of the Stanrock and Can-Met areas for an ultimate milling rate of 3,000 tons per day are being undertaken. Dewatering, the first stage of a rehabilitation program, could begin at the Stanrock workings in 1978. Once dewatered, shaft and mine re-opening could be underway within the following 12 to 18 months.

Milling—Tonnage milled increased by 35% to 2,059,000 tons in 1977. Grade milled at 2.07 pounds per ton compares with 2.16 pounds in 1976. A record daily production level of 7,444 tons was achieved and 7,100 tons per day capability now is well established and is the basis of the 1978 production plan. Production of uranium oxide was 4,001,000 pounds, an increase of 29% over 1976, providing a third successive year of increased output.

Mining—A new conveyor system ("C" Axis) lying 6,500 feet east of No. 2 shaft was successfully commissioned in August of 1977. This facility, which is connected to the underground crusher by a 3,000 foot transfer conveyor, has significantly increased productivity in mining operations in adjacent areas. Output from the underground operations improved during the year and tonnage objectives of 10,000 tons per day were being met during the last two months of the year.

The rehabilitation of No. 1 shaft and the recommissioning of the production hoist in July, 1977 provided the necessary flexibility in our materials handling system to ensure that mill operations can be maintained at capacity and to prepare underground operations for new expansion.

New concepts in loading ore in the underground operations are now under test. The mine has received its first production model electrical hydraulic drill. Engineering and equipment identification continue to be carried out to develop new low-profile type mechanized mining techniques.

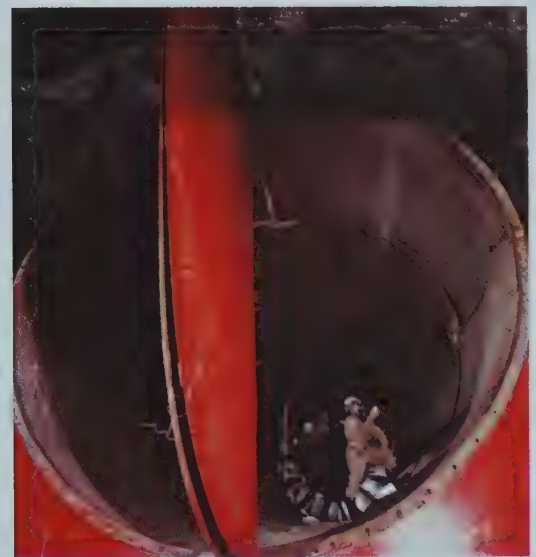


Instructor Don Berry explains a technical point to his class of diesel mechanics. Denison operates many job training programs designed to improve the technical competence of its workforce.

Opposite page: Part of Denison's innovative machinery—a three-boom rock bolter—provides improved productivity and increased safety.



A 26-ton truck dumps a load of ore onto a "grizzly". From here it falls to a conveyor while large pieces are broken pneumatically by double rock hammers. Operators are wearing the new airstream helmet, first introduced in Canada by Denison Mines Limited.



The surface structure of the Knowles Island upcast fans and an underground view of the No. 2 shaft downcast fans, both key installations in the extensive ventilation system at the Denison mine. The largest in North America, the Knowles Island fans have an upcast capacity of 2.2 million cubic feet per minute. In the upper photo, notice the relative size of the men on the structure.

Uranium Continued



Construction of new homes continues as one aspect of your company's plan to enhance living conditions and attract labour to the Elliot Lake area.

Environmental Protection—Mine ventilation was further improved with the start-up of the new main exhaust fans at Knowles Island and completion of the excavation of the new main intake raise. Total air capacity is now 2.4 million cubic feet per minute and the air in the entire mine is changed every 30 minutes.

Major improvements were made in personnel protection and the benefits will be realized in 1978 and future years. Meanwhile, the Company will continue to study abandonment requirements for tailings disposal areas and carry out interim stabilization programs and the necessary research to maintain good environmental standards.

Community and Labour Relations—Employees at Elliot Lake increased from 1,236 to 1,467. Recruiting of skilled tradesmen and experienced miners has improved and intensive training is underway to upgrade the skills of the present workforce.

Despite having been slowed down by continuous environmental studies demanded by the various departments of government involved, Denison's housing program continues to meet the most critical housing needs of its employees. Through the provision of some 250 units during 1977, Denison again assisted many of its employees with their housing needs. Plans for the 1978 housing program are well advanced. It is expected that the number of units completed for occupancy in 1978 will significantly exceed those provided in 1977.

There were over 340 registrations of employees in training programs; 169 of these represented upgrading of tradesmen and 171 covered underground mining training. Labour relations improved and all Anti-Inflation Board requirements were met. A new agreement covering production and maintenance workers will be negotiated during the year with effect from October 1, 1978. Agreements with other employees will also come up for renegotiation at various times during 1978.

Production Costs—Unit production costs continued to rise during 1977 owing to further escalations in the cost of materials and services, wage rates, increases in the cost of benefits and the necessary use of mining contractors to supplement the Denison workforce. The high cost of training was also a significant factor as the shortage of skilled tradesmen continued throughout the year. The cost of subsidized employee housing also increased during the year as further units were brought into use. Improvements occurred in man-hour productivity commencing in the third quarter of the year which should continue beneficially into 1978.

Ontario Environmental Assessment Board—The Board is currently conducting an inquiry into the effects on the environment of the expansion of the uranium mining industry in Elliot Lake. Consultants, retained by the Company, are preparing a detailed environmental study to establish an environmentally sound approach to the expansion of the Company's operations. The study will be presented to the Board in the near future, and it is expected that the Board will make its recommendation by mid 1978. The Company anticipates that it will be able to proceed with the expansion in 1978.

In addition to its participation in the inquiry, the Company has been continuing to co-operate with the various federal and provincial agencies in investigating methods of enhancing the quality of the environment. Research is being directed primarily to the achievement of further improvements in the quality of effluent.

OIL AND GAS



The new, dynamically-positioned drillship, Ben Ocean Lancer, drilling at the site of Montanazo M-D1, a successful oil well drilled in 1520 feet of water off the Spanish Mediterranean coast.



Cessford, Alberta; a producing gas well is a peaceful neighbour.

Opposite page: Denison's Chief Petroleum Engineer, Charles Chinneck, inspects the new Cessford compressor station. This station raises the pressure of gas flowing from wells for introduction into a high pressure pipeline.

Good progress was achieved by the oil and gas division, both in Canada and overseas.

A 50% increase in natural gas production and higher prices for both gas and oil in Canada resulted in a record contribution to earnings.

Denison's Canadian oil production in 1977 averaged 4,624 barrels daily, compared to 4,677 barrels daily in 1976 and natural gas production increased to 8,627 MCF daily from 5,739 MCF daily in 1976.

Outlook for 1978 is for a further gain in income as a result of higher natural gas production and a government-regulated rise in prices of oil and gas. About 20% of the higher prices is expected to be realized by the producers after payment of increased government taxes and royalties.

Highlights of international activities include the sale of oil from production testing at the discovery well offshore Spain and the projected development of the Prinos oil field in the Aegean Sea which has now received approval in principle by the Government of Greece.

New exploration programs including seismic surveys and drilling were initiated offshore Spain, offshore United Kingdom in the North Sea, onshore and offshore the United Republic of Cameroon, West Africa, and offshore Greece in the Aegean Sea.

Canada—The higher gas production reflects Denison's interests in new gas plants and gas wells coming on stream at Cessford, Kinakin, Judy Creek and Niton. A gas conservation unit was completed at Edson.

Successful oil wells were drilled on leases in the Bigoray and Mitsue areas of Alberta. A gas well was successfully drilled at Chinook. Drilling is projected for this winter in the Sierra area of British Columbia and in the Snipe Lake area of Alberta.

United States—New offshore and onshore prospects are being evaluated. An exploratory well was drilled and abandoned in California.

Spain-Mediterranean Sea—The Casablanca No. 1 discovery well in which Denison holds a 15% interest was redrilled and placed on a long-term production test at rates approximating 8,000 barrels of oil daily. This well has already produced over 800,000 barrels of oil. Revenue from the sale of this oil is being used to finance further exploration and development.

The semi-submersible drilling platform, Bideford Dolphin, is employed as a temporary production platform anchored in 475 feet of water. Oil produced on the platform is transferred to an oil tanker through a floating hose and then delivered and sold to Spanish refineries. Subject to government approval, it is planned to production test Casablanca No. 2 in the same manner as Casablanca No. 1.

A successful well, Montanazo MD-1, was drilled on the adjacent Montanazo D Block and was tested at over 9,600 barrels daily. This well has extended the Casablanca structure a further two miles to the northeast. A new wildcat well, MC-1, drilled on the Montanazo C Block on a separate structure flowed oil on test at over 9,000 barrels daily. The cost of the first well on each of Montanazo C and D Blocks is being paid for by others under a farmout agreement. Denison's 10% interest will reduce to 5% after the earning wells have been drilled and certain other conditions have been met by the farmees.

A well was also drilled and abandoned at no cost to Denison on the Alcanar Block.

Greece—A development and production plan for the Prinos field provides for the separation of oil and gas at offshore platforms and transport via submarine pipelines to a 25,000 barrels daily capacity plant near the island of Thasos for processing of the sour crude and associated gas.



Oil and Gas Continued

Leo Samoil, V.P. Oil and Gas, reviewing Denison's North Sea exploration activities with technical staff in Calgary (from left to right: Alastair Fraser, Chief Geologist for Oil and Gas; L. L. Samoil; Roy Blair, Engineering Technician; and Charles Chinneck, Chief Petroleum Engineer).



Surveys of the sea floor at the proposed plant site have been authorized.

Drilling of wells and the construction of processing facilities are to be carried out concurrently over about three years in this development area.

Denison owns 68.75% of this field. North Aegean Petroleum Company has been organized by the Greek Consortium partners, including Denison, to manage operations in Greece.

In 1977, two exploratory wells were drilled and abandoned outside of the Prinos development area and a three-well exploration program is planned for 1978.

United Republic of Cameroon—Denison has interests in three permits—two offshore and one onshore. On the onshore Douala No. 1 permit, Gulf Oil Corporation will perform certain seismic exploration and drilling operations to earn an interest. A portion of the seismic program has already been completed and well location sites are being prepared. A drilling rig which will drill up to three wells in 1978 has been taken under contract.

On one of the offshore blocks, Oceanic No. 1, drilling is planned under an agreement with Wintershall, Elf-Serepca and Oceanic Exploration Company. Denison will hold both a farmout and a participating interest in this block.

Nicaragua—Denison is seeking partners for the exploration of its acreage offshore the Pacific Coast of Nicaragua.

United Kingdom—Drilling operations during 1977 on both Block 16/13 and Block 3/7 in the North Sea were unsuccessful. Further exploration will be determined by operations in progress on adjacent blocks.

CONSOLIDATED FINANCIAL STATEMENTS

Denison Mines Limited
Annual Report for the
Year Ended December 31, 1977

FINANCIAL REVIEW AND ANALYSIS OF OPERATIONS

The Five Year Summary included in this Report on page 25 summarizes the operating and financial history of the Company for the years 1973 to 1977.

Sales — In 1977 sales increased by \$39,004,056 or 24% while sales increases in 1976 and 1975 were 14% and 70% respectively. A higher level of uranium delivery to Japanese electric utilities together with improved prices and a favourable exchange rate accounted for the major part of increased minerals sales of \$29,207,829. The increase in cement and cement product sales of \$9,796,227 is accounted for by the purchase in April, 1977 of a cement grinding business located in the State of Michigan and a slightly higher volume of cement sales combined with higher selling prices.

Earnings — Net earnings in 1977 were \$27,878,009, an increase of \$12,834,795 or 85% over the previous year. Significant factors contributing to this improvement were greater uranium deliveries to Japanese electric utilities, higher net revenue from oil and gas production and an increase in the earnings of Lake Ontario Cement. In addition, during 1977 the Canadian dollar was at a discount in relation to the U.S. dollar whereas during most of 1976 it was at a premium. In 1976, net earnings were \$15,043,214, a decrease of \$11,474,570 from the preceding year. Reduced uranium deliveries, higher uranium production costs, substantially higher oil exploration expenditures and lengthy start-up problems at the new pre-heater kiln system of Lake Ontario Cement Limited were the major factors contributing to that decrease.

Capital Expenditures — Investment in plant, equipment, employee housing and oil properties amounted to \$56,058,178 in 1977, an increase of \$3,761,735 over 1976. Major programs included the rehabilitation of the No. 1 shaft at the Denison mine, the continuation of a large housing construction program at Elliot Lake and expenditures on oil and gas licenses in the Aegean Sea.

Taxes — The effective corporate income and mining tax rate in 1977 was 44.3%, compared with 53.1% in 1976. Major factors contributing to the reduction in the effective rate include the investment tax credit and capital gains realized during the year.

Financial Position — Funds generated from current operations during 1977 amounted to \$57,809,375 while the acquisition of a cement grinding business by Lake Ontario Cement and mortgages relating to Elliot Lake housing contributed \$4,462,500 and \$3,955,741 respectively. Other items contributed \$3,131,032. Working capital decreased during 1977 by \$3,354,961 as a result of capital expenditures of \$56,058,178, dividends to shareholders of \$10,050,086 and other applications of funds totalling \$6,605,345. At December 31, 1977 current liabilities exceeded current assets by \$3,263,692.

ACCOUNTING POLICIES

For the year ended December 31, 1977

The accounting policies of the Company are in accordance with generally accepted accounting principles. Outlined below are those policies considered particularly significant for the Company.

Basis of Consolidation — The consolidated financial statements include the accounts of the Company and all subsidiaries.

Translation of Foreign Currencies — Foreign currencies have been translated into Canadian dollars as follows: current assets and current liabilities at rates in effect at the end of the year; non-current assets and liabilities and revenue and expenditure items at approximate rates in effect at dates of transactions, except for depreciation and depletion which are translated at the same rates as the related assets.

Inventories — Concentrates and finished and semi-processed cement products are valued at average cost of production. Operating supplies are valued at average cost. In all material respects, inventory costs are lower than either replacement cost or net realizable value.

Long-term Investments — The investment in shares of effectively controlled companies is accounted for by the equity method, by which the original cost of the shares is adjusted for the Company's share of earnings or losses less dividends since effective control was acquired. The treatment of expenditures of mining companies in the exploration stage has been conformed in these consolidated financial statements to the policy followed by the Company. Portfolio investments are carried at cost.

All long-term investments are written down to their estimated inherent worth when there is evidence of a permanent decline below their carried value.

Amortization — The excess of the Company's investment in Lake Ontario Cement Limited over its share in the underlying equity at date of acquisition is being amortized over a 25 year period.

Fixed Assets, Depreciation and Depletion

— **Plant, Equipment and Housing** — Plant, equipment and housing of the companies are recorded at cost and depreciated, generally on a straight-line basis, over their estimated useful lives except that (a) plant and equipment at the Company's mine properties acquired before 1965 were written off in prior years and (b) oil and gas production equipment is depreciated by the unit of production method.

— **Mineral Properties (Mining, Oil and Gas)** — The Company accounts separately for each group of permits, licences or leases in a designated exploration or development area as a separate area of interest. All exploration costs relating to each area of interest are written off in the year incurred. If it is determined that an area of interest contains economically recoverable reserves, all costs relating to that area for the current and subsequent years are deferred. These deferred costs, together with property acquisition costs, are amortized against related production revenues on the unit of production method based on the area's estimated proven reserves or written off if that property is abandoned.

Development costs incurred for the specific purpose of preparing existing mining areas beyond current requirements are also deferred and amortized by the unit of production method.

Income and Mining Taxes — The Company follows the tax allocation method of accounting whereby the provision for income and mining taxes is based upon income reported in the accounts with the exception of available capital cost allowances of a predecessor company as outlined in note 6(b).

The benefits arising from the investment tax credit provisions of the Income Tax Act are treated as a reduction of the current year's income tax provision.

CONSOLIDATED BALANCE SHEET

Denison Mines Limited as at December 31, 1977

Assets

	1977	1976
<i>Current Assets</i>		
Cash and short-term deposits	\$ 695,752	\$ 1,699,201
Marketable securities — at market which is lower than cost	10,126,734	7,893,156
Accounts receivable	30,267,764	28,246,047
Concentrate inventories	286,779	489,651
Cement product inventories	7,295,005	3,794,898
Supplies and prepaid expenses	15,857,389	12,467,719
	64,529,423	54,590,672
<i>Long-term Investments (note 2)</i>	37,753,604	36,477,210
<i>Fixed Assets (note 3)</i>	184,538,855	134,984,778
<i>Other Assets (note 4)</i>	2,850,098	555,513
	<u>\$289,671,980</u>	<u>\$226,608,173</u>

AUDITORS' REPORT

To the Shareholders of Denison Mines Limited

We have examined the consolidated balance sheet of Denison Mines Limited as at December 31, 1977 and the consolidated statements of earnings and retained earnings and changes in financial position for the year then ended. For Denison Mines Limited and for those other companies of which we are the auditors and which are consolidated or are accounted for by the equity method in these financial statements, our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. For other companies consolidated or accounted for by the equity method we have relied on the reports of the auditors who have examined their financial statements.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1977 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada,
January 13, 1978

COOPERS & LYBRAND,
Chartered Accountants

Liabilities

	1977	1976
<i>Current Liabilities</i>		
Bank indebtedness (note 5)	\$ 32,126,745	\$ 17,860,560
Accounts payable and accrued charges	27,284,047	24,643,572
Dividends payable	1,058,838	348,133
Income and mining taxes payable (note 6)	1,585,898	1,265,754
Long-term debt due within one year	1,172,865	1,359,384
Advances on concentrate sales contracts	4,564,722	9,022,000
	<u>67,793,115</u>	<u>54,499,403</u>
<i>Advances on Concentrate Sales Contracts</i>	20,600,000	17,907,597
<i>Long-term Debt (note 7)</i>	30,895,307	20,840,432
<i>Minority Interest in Subsidiary Companies</i>	15,639,497	15,046,753
<i>Deferred Income and Mining Taxes (note 6)</i>	39,839,630	21,237,480
	<u>174,767,549</u>	<u>129,531,665</u>

Shareholders' Equity

<i>Capital Stock</i>		
Authorized — 6,000,000 shares of \$1 par value each		
Issued and fully paid — 4,568,221 shares	4,568,221	4,568,221
<i>Contributed Surplus</i>	7,937,764	7,937,764
<i>Retained Earnings</i>	102,398,446	84,570,523
	<u>114,904,431</u>	<u>97,076,508</u>
	<u>\$289,671,980</u>	<u>\$226,608,173</u>

Signed on behalf of the Board

John C. Puhky, Director

E. B. McConkey, Director

CONSOLIDATED STATEMENT OF EARNINGS AND RETAINED EARNINGS

Denison Mines Limited for the year ended December 31, 1977

	1977	1976
Gross Revenue		
Minerals (uranium, yttrium, oil and gas)	\$ 134,421,455	\$ 105,213,626
Cement and cement products	64,641,278	54,845,051
	<u>199,062,733</u>	<u>160,058,677</u>
Production, Exploration and Administration Costs	146,327,802	124,538,362
	<u>52,734,931</u>	<u>35,520,315</u>
Revenue from Investments (note 2(h))	10,591,445	6,859,783
Net Earnings Before Items Shown Below	<u>63,326,376</u>	<u>42,380,098</u>
Deduct: Depreciation, depletion and amortization	8,958,741	6,992,737
Interest on long-term debt	2,559,471	1,699,853
	<u>11,518,212</u>	<u>8,692,590</u>
	51,808,164	33,687,508
Income and Mining Taxes	22,950,000	17,901,000
Earnings before Minority Interest	28,858,164	15,786,508
Minority Interest	980,155	743,294
Net Earnings for the Year	<u>27,878,009</u>	<u>15,043,214</u>
Balance of Retained Earnings — Beginning of Year	84,570,523	78,663,751
	<u>112,448,532</u>	<u>93,706,965</u>
Dividends	10,050,086	9,136,442
Balance of Retained Earnings — End of Year	<u>\$ 102,398,446</u>	<u>\$ 84,570,523</u>
Earnings per Share for the Year	<u>\$6.10</u>	<u>\$3.29</u>

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

Denison Mines Limited for the year ended December 31, 1977

<i>Sources of Working Capital</i>	1977	1976
Current operations —		
Earnings for the year before minority interest	\$ 28,858,164	\$ 15,786,508
Add: Items which did not require the use of working capital in the year —		
Depreciation, depletion and amortization	8,958,741	6,992,737
Deferred income and mining taxes	18,602,150	10,209,000
Other	1,390,320	970,831
Total from current operations	57,809,375	33,959,076
Increase in advances on concentrate sales contracts	2,692,403	—
Working capital on acquisition of cement grinding business (note 9)	4,462,500	—
Net working capital on consolidation of newly acquired subsidiary	—	1,442,982
Issue of mortgages primarily on construction and purchase of Elliot Lake housing units	3,955,741	4,945,736
Realization of long-term investments	220,000	2,093,796
Other	218,629	900,000
	<u>69,358,648</u>	<u>43,341,590</u>
<i>Uses of Working Capital</i>		
Additions to fixed assets	56,058,178	52,296,443
Reduction of advances on concentrate sales contracts	—	8,989,577
Increase in other assets	2,340,875	—
Reduction of long-term debt	1,144,365	1,335,515
Purchase of long-term investments	2,721,439	14,416,683
Dividends to minority shareholders of Lake Ontario Cement Limited	398,666	398,666
Dividends	10,050,086	9,136,442
	<u>72,713,609</u>	<u>86,573,326</u>
<i>Decrease in Working Capital</i>	<u>\$ 3,354,961</u>	<u>\$ 43,231,736</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Denison Mines Limited for the year ended December 31, 1977

1. Accounting Policies

The information on page 17 presents a summary of significant accounting policies and is an integral part of these financial statements.

2. Long-term Investments

(a) This item comprises:	1977	1976
Investment in companies accounted for by the equity method —		
Shares — note 2(b)	\$ 4,021,478	\$ 3,754,290
Debentures — note 2(e)	1,150,000	1,400,000
Loans	367,044	1,310,811
	<u>5,538,522</u>	<u>6,465,101</u>
Portfolio investments, at or below cost —		
Shares — note 2(c)	19,518,104	18,485,064
Secured loans — note 2(f)	12,696,978	11,527,045
	<u>32,215,082</u>	<u>30,012,109</u>
	<u>\$37,753,604</u>	<u>\$36,477,210</u>

(b) Included in shares of companies accounted for by the equity method are shares carried at \$2,937,729 with a quoted market value of \$4,798,908 (1976 — \$2,773,167 and \$5,622,041 respectively).

(c) Portfolio investments include shares carried at \$19,463,922 with a quoted market value of \$16,933,697 (1976 — \$18,430,882 and \$18,335,917 respectively).

(d) The quoted market values referred to above do not necessarily reflect the realizable value of these holdings which may be more or less than that indicated by market quotations.

(e) Debentures consist of 6.5% Black Hawk Mining Ltd. debentures due June 30, 1974 (face value — \$1,965,000 plus unrecorded interest accrued from January 1, 1967 of \$2,444,187). Security includes all net moneys which may be received by Black Hawk from production from certain mineral properties in Mainé. These properties were closed and put on a care-and-maintenance basis in October, 1977. Current projections indicate a net cash flow to Denison Mines Limited from these debentures of approximately \$1,150,000.

(f) Secured loans in note 2(a) above include a loan of \$9,810,000 (\$U.S.10,000,000), plus accrued interest of \$1,189,933, made to Oceanic Exploration Company pursuant to an agreement described in note 8(d).

(g) During the year the Company completed the sale of 30% of the shares of Saxon Coal Limited. The purchasers may elect on or before December 15, 1978 to purchase an additional 20% of the shares of Saxon Coal Limited on December 15, 1978 for a consideration of \$3,500,000 less commission.

(h) Revenue from investments is comprised of the following:

	1977	1976
From subsidiary companies —		
Gain on sale of shares of Saxon Coal Limited (note 2(g))	\$6,700,000	\$2,300,000
From companies accounted for by the equity method —		
Loss	(38,992)	(816,701)
Gain on sale of certain shares held in coal companies	1,189,190	561,826
Provision for decline in value	(250,000)	(251,854)
From portfolio investments —		
Dividends and interest	1,918,566	1,107,921
Gain on disposal of securities	—	223,525
Provision for decline in value	—	(76,000)
Income from long-term investments	9,518,764	3,048,717
Income from marketable securities and short-term deposits	1,072,681	3,811,066
	<u>\$10,591,445</u>	<u>\$6,859,783</u>

3. Fixed Assets

Fixed assets are comprised of the following:

	Cost at December 31, 1977	Accumulated depreciation, depletion and amortization to December 31, 1977	Amount written off in 1977
Land	\$ 4,781,055	\$ —	\$ —
Mining properties	4,613,787	922,620	91,710
Oil and gas properties	26,434,608	3,600,204	389,754
Plant and equipment	179,702,525	103,337,880	7,259,835
Deferred development	39,005,104	4,446,751	868,175
Employee housing	14,501,310	434,267	349,267
Construction in progress	28,242,188	—	—
	<u>\$297,280,577</u>	<u>\$112,741,722</u>	<u>\$8,958,741</u>

Plant, equipment and housing are depreciated at annual rates which vary from 2.5% to 33.3%. Included in plant and equipment at December 31, 1977 are fully depreciated assets of \$61,530,000. Accumulated depreciation, depletion and amortization at December 31, 1976 amounted to \$104,363,883.

4. Other Assets

This item comprises:

	1977	1976
Prepaid commission on concentrate sales contracts	\$2,081,000	\$ —
Excess of cost of investment in Lake Ontario Cement Limited over the related net book value of its assets, less amortization	509,223	555,513
Other	259,875	—
	<u>\$2,850,098</u>	<u>\$555,513</u>

5. Bank Indebtedness

Of total bank indebtedness of \$32,126,745, an amount of \$13,865,000 is secured by certain securities owned by the Company.

6. Income Taxes

(a) Unrecorded deferred income taxes in respect of timing differences related to depreciable assets and oil and gas intangibles prior to adoption of the tax allocation method of accounting amount to \$9,336,000.

(b) The provision for income taxes otherwise required for 1977 was reduced by \$455,600 or \$0.10 per share (1976 — \$644,000 or \$0.14 per share) as a result of claiming for tax purposes a portion of the excess of certain fixed asset tax values over their net book value. Such excess arose during the tax-exempt period of production from a mine of a predecessor company. Approximately \$3,642,000 of this excess remains to be claimed for tax purposes in the future.

7. Long-term Debt

(a) This item comprises:

	1977	1976
<i>Lake Ontario Cement Limited and subsidiaries —</i>		
9.75% debenture due 1994	\$14,640,000	\$15,500,000
Promissory notes, with interest at U.S. prime rate plus 1% (but not less than 8% or greater than 9%), due 1980 to 1983 (\$U.S.3,800,000)	3,990,000	—
Term bank loan, with interest at U.S. prime rate plus 1.75% (but not less than 8%), due 1979 to 1983 (\$U.S.3,000,000)	3,150,000	—
Notes and mortgages due up to 1982 at rates of 5%, 9.75% and 10%	702,230	1,095,954
	<u>22,482,230</u>	<u>16,595,954</u>
<i>Other —</i>		
Elliot Lake housing mortgages at rates varying from 8% to 12% maturing from 2013 to 2028	9,585,942	5,603,862
	32,068,172	22,199,816
Repayable within one year	1,172,865	1,359,384
	<u>\$30,895,307</u>	<u>\$20,840,432</u>

(b) The debenture referred to in (a) above is payable in annual instalments of \$860,000 and is secured by a first mortgage on the manufacturing facility in Picton, by a floating charge on substantially all other property, plant and equipment of Lake Ontario Cement Limited and by a pledge of the shares of a subsidiary.

(c) A promissory note for \$2,677,500 (\$U.S.2,550,000) included in promissory notes in (a) above is secured by a mortgage on land, buildings and machinery located in Essexville, Michigan.

(d) The debt in U.S. has been translated at the rate of exchange in force when the debt was incurred. If the year-end rate were to be used the total long-term debt would increase by \$306,000.

(e) Total long-term debt repayments required in 1978 are \$1,172,865, in 1979 are \$1,577,238, in 1980 are \$2,590,198, in 1981 are \$2,496,930 and in 1982 are \$2,437,500.

8. Commitments and Contingencies

(a) In December, 1977 the Company entered into an agreement with Ontario Hydro for the sale to the utility of 126,000,000 pounds of uranium oxide, subject to certain provisions as to specified curtailments or reductions and as to termination. The uranium oxide is to be delivered over a 31 year period from 1980 to 2011 under an agreed pricing formula. Fulfilling the agreement will require a major expansion of the plant and mine facilities at Elliot Lake. The utility will advance to the Company between 1978 and 1984 the cost of the expansion, estimated at \$151,000,000 in 1975 dollars, including an initial advance of \$25,000,000, which advances will be repaid by the Company over the delivery period. The Company's Elliot Lake operating properties, facilities and certain other assets related thereto will be security for the funds advanced subject to the Company's right to give prior security for future indebtedness in agreed amounts. The agreement is conditional on the issuance by February 28, 1978 of an Order-in-Council by the Government of Ontario ratifying the entering into of the agreement by Ontario Hydro.

(b) The Canadian Government has not completed nuclear safeguards agreements with a number of Canada's principal foreign uranium customers. Accordingly, the Government has not issued permits to export uranium to the Company's principal market in Japan beyond December 31, 1976. Deliveries to Japanese customers since that date are being made within Canada. Japan has ratified the Non-Proliferation Treaty and, despite lengthy delays, the Company is assured that every effort is being made by the Canadian Government to conclude a safeguards agreement as quickly as possible. The Company is not expected to be adversely affected.

(c) Tennessee Valley Authority commenced proceedings in 1977 in the United States District Court for the Eastern District of Tennessee against eight defendants, including the Company. Westinghouse Electric Corporation is continuing proceedings commenced in 1976 in the United States District Court for the Northern District of Illinois against twenty-nine defendants, including the Company and its wholly-owned subsidiary, Denison Mines (U.S.) Incorporated. In each action the plaintiff is claiming relief from alleged illegal combinations and conspiracies entered into by the defendants to restrain both the interstate and foreign commerce of the United States in uranium in violation of the Sherman Antitrust and Wilson Tariff Acts. The plaintiff in each action claims an injunction and treble the damages alleged to be caused to the plaintiff, the extent, if any, of such damages not yet having been ascertained. The Company and Denison Mines (U.S.) Incorporated are of the opinion that the actions are without merit as against them and are defending the actions, denying any illegal actions and asserting a lack of jurisdiction.

(d) Under a purchase agreement entered into in 1976, by which the Company acquired, among other interests, a 68.75% interest in an oil exploration and development area in the Sea of Thrace, the Company is required to pay to Oceanic Exploration Company ("Oceanic"), but only from production, an additional \$U.S.10,000,000 and Oceanic is further entitled to a 15% net earnings interest in the above area, which is to commence when the production payment is completed. Under the purchase agreement the Company loaned to Oceanic \$U.S.10,000,000 (see note 2(f)) for a period of five years provided that in certain circumstances the Company may demand earlier repayment and in such event if such loan, with interest, is not repaid within a stipulated period then it is converted into an oil payment due by Oceanic to the Company in an amount double the loan and accrued interest. Such oil payment will then be payable out of the production payment and net earnings interest payable by the Company to Oceanic. Certain finders' fees in connection with this transaction are payable by the Company out of future production attributable to the interests of the Company in the above area and in the Cameroon area.

(e) The Company has guaranteed payment of both principal and interest on a note for \$U.S.4,759,900 issued by Quintette Coal Limited, an affiliated company. The note bears interest at 9% per annum compounded annually and matures in 1979.

(f) In addition to the expansion referred to in note 8(a), major projects authorized as of December 31, 1977 will require estimated capital expenditures of \$153,000,000.

(g) Based on the most recent actuarial evaluations, unfunded past service pension liabilities of the companies amount to \$7,375,000. This amount is being funded and expensed over periods from 13 to 20 years. The total charge against operations in 1977 with respect to past service liabilities amounted to \$986,000 including interest.

(h) The companies have existing lease agreements, primarily for shipping facilities and real property, for which the minimum annual aggregate rentals total approximately \$1,900,000.

9. Acquisition of Cement Grinding Business

Effective April 16, 1977, a newly incorporated wholly-owned subsidiary of Lake Ontario Cement Limited acquired the net assets of a cement grinding business in Essexville, Michigan for a consideration of \$6,391,145 (\$U.S.6,086,805) allocated and financed as follows:

Current assets	\$3,877,400
Current liabilities	163,755
Working capital	3,713,645
Fixed assets	2,677,500
Cost of acquisition	6,391,145
Issue of promissory notes and term bank loan (note 7)	7,140,000
Proceeds of borrowing in excess of cost	748,855
Working capital of acquired business	3,713,645
Working capital on acquisition of cement grinding business	<u>\$4,462,500</u>

10. Prices and Incomes Legislation

The companies are subject to restraint of profit margins, prices, dividends and compensation of employees under the Federal Anti-Inflation Act and Regulations.

11. Remuneration of Directors and Senior Officers

Direct remuneration received by the directors and senior officers in 1977 amounted to \$1,077,628 (1976 — \$1,008,620).

FIVE YEAR SUMMARY

Denison Mines Limited

Production Data	1977	1976	1975	1974	1973
Tons milled	2,059,000	1,522,000	1,340,000	1,290,000	1,432,000
Average grade (lbs. U ₃ O ₈ per ton)	2.07	2.16	2.30	2.33	2.57
Pounds U ₃ O ₈ produced	4,001,000	3,112,000	2,911,000	2,807,000	3,424,000
Crude oil (bbls.)	1,688,000	1,712,000	1,941,000	2,237,000	2,386,000
Natural gas (mcf)	3,149,000	2,100,000	2,188,000	2,236,000	2,103,000

Consolidated Financial Data

Sales	\$199,062,733	\$160,058,677	\$139,855,498	\$82,216,435	\$70,354,258
Net earnings for the year	27,878,009	15,043,214	26,517,784	12,691,551	9,866,833
— per share	6.10	3.29	5.80	2.78	2.16
Dividends paid	10,050,086	9,136,442	8,451,209	6,395,509	6,395,509
— per share	2.20	2.00	1.85	1.40	1.40
Working capital (deficiency)	(3,263,692)	91,269	43,323,005	18,553,932	(5,749,851)
Additions to fixed assets	56,058,178	52,296,443	26,361,343	12,458,419	9,232,462
Shareholders' equity	114,904,431	97,076,508	91,169,736	73,103,161	66,807,119
— per share	25.15	21.25	19.96	16.00	14.62

COAL



Coal sampling on the Saxon property; part of Denison's continuing coal quality evaluation program.



Loading bulk coal samples into trucks to be shipped to steel mills for evaluation.

Exploration and engineering studies continued during 1977 on two of the major metallurgical coal properties in northeast British Columbia in which Denison has interests. A full-scale feasibility study on the Quintette project was completed early in the year. The detailed feasibility study on the Saxon project was completed during October.

Interest in development of northeast British Columbia coal resources continues to be demonstrated by both the Federal and British Columbia Governments. Under Federal/Provincial Agreements reached early in the year, joint expenditures by both Governments totalling \$13 million were undertaken. These expenditures continued throughout the year on road construction, selection and design of rail and road routes to the area, and studies regarding manpower, townsite requirements, environmental considerations and economics relative to development of the region. The results of these studies are expected to be announced early in 1978, when it is anticipated that the Governments involved will define conditions under which infrastructure for the area will be developed.

Although the world economic recession is causing difficulties for the steel industry in the short term, the world steel industry requirement for high quality metallurgical coal creates confidence by your Company in the future development of the coal resources of northeast B.C.

BRITISH COLUMBIA

Quintette—The full-scale feasibility study on the Quintette project was completed early in 1977. The coal from Quintette has been proven to be a high-grade metallurgical coal capable of replacing most of the world's best coals in blends for coke manufacture.

Following completion of the full-scale feasibility study, technical and commercial presentations were made to the Japanese steel industry. The continuing interest of the Japanese is indicated by their request for further discussions early in 1978, based on a modified concept for the development of the Quintette project. As well, other parties have indicated a strong interest in Quintette's development.

Through funding of work on exploration and development, Imperial Oil Limited will earn a 16.75% interest in Quintette Coal Limited. Upon completion of this work, the shareholders in Quintette Coal Limited will be as follows: Denison Mines Limited—38.25%; Tokyo Boeki Ltd. and Mitsui Mining Co., Ltd.—45.00%; and Imperial Oil Limited—16.75%. Denison is the manager of the project.

The property, which is located approximately 60 air miles southwest of the City of Dawson Creek, B.C., is estimated to contain 2.8 billion tons of metallurgical coal in place.

Saxon—The detailed feasibility study on the Saxon project was completed in October. The study demonstrates that the project is both technically and economically feasible under present conditions.

Completion of the detailed Saxon feasibility study represents completion of the second phase of a \$5 million program of exploration and feasibility studies, which form part of the process by which the Ruhrkohle Group may acquire an interest of up to 50% in Saxon Coal Limited. The Ruhrkohle Group consists of Ruhrkohle A.G., Mitsui & Co. Ltd., and Union Siderurgique du Nord et de L'est de la France S.A.

The 1977 field exploration and feasibility study confirmed the presence of reserves more than sufficient to support a production level of 4 million tons per year for a project life of 20 years. Production would be almost equally divided between surface operations and underground hydraulic mining.

The Saxon property, which is located approximately 90 air miles south of Dawson Creek, B.C., is estimated to contain reserves in excess of 500 million tons of coal in



Denison geologist, Hans Palloks, maps a 40-foot coal seam on one of the British Columbia properties.

Coal Continued

In northern British Columbia, helicopters facilitate easy movement of personnel and equipment. Here, a pilot's view of an access road to an exploration tunnel at one of the B.C. coal properties.



place. The coal has been proven to be a good quality metallurgical coal, with qualities much in demand by the world steel industry.

Belcourt—A minimum exploration program was carried out on the Belcourt property during 1977. It is estimated that the property, which is situated between the Quintette and Saxon properties, contains a minimum of 300 million tons of coal in place, and would support a production level of 4 million tons per year. Geological data indicate that a significant portion of the reserves could be mined by surface methods.

A program of field investigations and feasibility studies is being prepared for initiation in 1978.

ALBERTA

Increased interest by parties within and outside Canada in the Coalspur property near Hinton, Alberta became evident in the latter half of 1977. The Coalspur leases are estimated to contain reserves in the order of 500 million tons of good quality bituminous thermal coal. Potential markets for this coal include Ontario Hydro, Alberta thermal generating stations, the Pacific Rim countries and Europe where stable sources of energy are becoming a matter of increasing concern.

The Alberta Government has not yet completed the drafting of regulations under which leaseholders would be compensated for expenditures on leases which are to be surrendered to the Government as required by the Alberta coal policy issued in July, 1976. According to this policy, it may be necessary to return to the Government the Rock Lake lease and part of the Wildhay leases.

INDUSTRIAL



Aetna Cement Corporation, a wholly-owned subsidiary of Lake Ontario Cement Limited, recently purchased this grinding and distribution facility in Essexville, Michigan. Adjacent to Lake Huron, the plant is ideally suited for lake freighter shipment of "clinker" and cement.



Superintendent of Distribution, Ron Langmuir, oversees loading of bulk cement and "clinker" into freighters at Lake Ontario Cement's Picton plant.

Opposite page: The automated bagging operation at Lake Ontario Cement, Picton.

LAKE ONTARIO CEMENT LIMITED

A 35% rise in earnings in 1977 represents a considerable improvement from a difficult 1976. Key factors in this upturn were the elimination of mechanical problems associated with the introduction of a new kiln system at the Picton cement plant and record sales. Particularly noteworthy is the fact that 1977 represents the tenth consecutive year of increased sales for Lake Ontario Cement Limited.

The discount on the Canadian dollar in relation to the U.S. currency assisted export business which accounts for about 40% of total sales. Earnings were contributed by the wholly-owned subsidiary, Aetna Cement Corporation, which was formed to acquire a Michigan-based cement grinding business in April, 1977.

Earnings—Consolidated earnings for the year 1977 were \$2,007,461 (46.7¢ per share), an increase of 35% over the 1976 level of earnings which were \$1,484,745 (34.5¢ per share). Consolidated sales totalled \$64,641,278, up 18% from the 1976 level of \$54,845,051.

Both sales and earnings include, for the first time, results of Aetna Cement located in Essexville, Michigan. The purchase price was approximately \$6.4 million financed through the issuance of medium term notes to the former owner and bank term debt. Lake Ontario Cement now has a well established plant and a substantial interest in a new market area.

Operations—Volume of product shipped in 1977 was approximately at the same level as in 1976. Cement shipments were up slightly while concrete products sales declined. Unprecedented cold weather hampered construction and closed down many concrete industries in the early part of the year. Business volume improved in the second half of the year.

In the Cement Division, advantages of the market diversification policy were evident as shipments in Ontario held steady. New York shipments declined, while the Michigan market was more buoyant. The new kiln system at the Picton, Ontario plant is operating satisfactorily.

The Concrete Products Division continued to be affected by severe price discounting and weak markets for ready-mixed concrete, particularly in the Toronto and Hamilton regions. The Ottawa ready-mixed concrete market has been adversely affected for the near term by the Federal Government policy of decentralizing federal offices into other sections of Canada.

Outlook—Although the current economic situation in Canada continues difficult, further improvement in results is anticipated for 1978. Efficiency continues to improve at the Picton cement plant. The market diversification policy has placed the company in a good position to benefit from strengthening in United States markets. A continuing lower value for the Canadian dollar improves the company's competitive position in the U.S. In Ontario, construction markets will likely continue weak because of government anti-inflation control programs, political uncertainty and generally unstable economic conditions.

REISS LIME COMPANY OF CANADA, LIMITED

Demand for industrial lime remained strong throughout 1977 and the lime plant at Serpent Harbor in northern Ontario again operated at capacity. Additions to storage capacity were completed, and operations at full capacity are anticipated for 1978.

A trans-shipment facility for sulphuric acid is being built at the Reiss Lime plant site by Canadian Industries Ltd. and will be operated by Reiss Lime under a long-term arrangement. Construction is well advanced and shipments will begin in 1978.

The long-term outlook for lime markets is strong and consideration is being given to expansion of production facilities.



EXPLORATION

Using a scintillometer, Denison's Director of Exploration, Dr. E. L. Evans, and Alex Pearson, examine an outcrop for radioactivity in northern Saskatchewan.

Opposite page: Exploration continues at Elliot Lake to expand known reserves. Here, geologist Alan Chan logs diamond drill core.



During 1977 your Company and a wholly-owned subsidiary carried out an intensive property acquisition program in key areas of Canada and the United States which is intended to be continued in 1978. The properties were subjected to ground and airborne surveys employing the latest exploration techniques, and systematic drilling of promising targets.

Canada—The property acquisition program has yielded attractive acreage in the Athabasca Basin in northern Saskatchewan, including the Wollaston fold belt and the Key Lake area where recent significant discoveries of large high-grade deposits of uranium have been made by other companies.

Important new uranium joint venture exploration agreements were made during the year with subsidiaries of Mitsui Mining and Smelting Co. Ltd. and Mitsui & Co., Ltd., as well as with the Government of Manitoba and the Saskatchewan Mining Development Corporation. In addition, your Company continued its existing joint ventures with our partners Imperial Oil, Union Carbide and Exploram Minerals Limited of Calgary.

Arrangements have been made with Mega Montan of West Germany for a major joint venture uranium exploration program in Canada. The program, which commenced towards the end of the year, will be carried out over a six-year period. The program and developments will be managed by your Company. Expenditures on the program during the first two years will amount to \$8 million.

During 1977, follow-up work was carried out on properties acquired in 1976 in Ontario, Manitoba, Saskatchewan, Alberta and the Northwest Territories. As a result, all properties in Saskatchewan and Alberta will be retained for more work, as well as some in the Northwest Territories and Manitoba. Negotiations are currently underway for additional ground in other parts of Canada.

United States—In the United States initial exploration was completed on two properties in the Spokane area in Washington State. This work has defined drill targets on one of the properties. In the Lake Superior region of the United States geochemical surveys have indicated several anomalous areas in Pre-Cambrian terrains. Further detailed work is planned in this region during 1978. In addition, mineral leases have been acquired in a sedimentary basin in the eastern United States and geological surveys were completed on the basis of which a drilling program is planned for 1978.

Planning the following day's field work.





INVESTMENTS

Opposite page: Construction of a new facility to be operated by Reiss Lime for trans-shipment of sulphuric acid over the Great Lakes system.

Standard Trust Company enjoyed its seventh successive year of growth in earnings and assets. At December 31, 1977, total assets were \$128,700,000, a rise of 14% from \$112,600,000 at the end of 1976. Dividends were initiated in 1976. Two offices were opened during 1977 to bring the total number of offices to ten.

Pacific Tin Consolidated Corp. is enjoying its best profitability in three years. Net income of \$1,362,000 for the nine months ended September 30, 1977 represents an increase of 56% from \$872,000 in the same 1976 period. The increase in profits mainly reflects higher tin prices which averaged \$4.56 a pound during the 1977 period, up from \$3.31 a pound in the corresponding 1976 period. Pyron Corp., a producer of iron powders acquired in April, 1977, also contributed to the profit increase.

Black Hawk Mining Ltd. reports that the Blue Hill, Maine Joint Venture suspended production at its copper-zinc mine in October. Shipments of zinc concentrates will continue from stockpile for several months. Mobile equipment is to be sold and fixed equipment retained as the mine is placed on a care-and-maintenance basis. Should future metal markets improve sufficiently, operations could resume. The mine could not operate on an economic basis under prevailing depressed copper and zinc prices. Black Hawk reported a loss of \$612,000 for 1977. Loss in 1976 was \$2,057,000, including a \$926,000 extraordinary writedown.

Consolidated Rexspar Minerals and Chemicals Limited is continuing metallurgical and other engineering studies on its British Columbia uranium property to assess the feasibility of the project. As well, work on a second and more detailed environmental impact study, for presentation to the B.C. Government, is now underway.

SUBSIDIARY

Lake Ontario Cement Limited	53.7%
Aetna Cement Corporation	100% *
Primeau Argo Block Co. Limited	72.5% *
Rochester Portland Cement Corp.	100% *

*Percentage held by Lake Ontario Cement Limited

OTHER INVESTMENTS

Pacific Tin Consolidated Corporation	36.8%
Reiss Lime Company of Canada, Limited	49.0%
Standard Trust Company	47.8%

EXPLORATION AND DEVELOPMENT

Argosy Mining Corporation Limited	37.1%
Black Hawk Mining Ltd.	32.5%
Consolidated Rexspar Minerals & Chemicals Limited	46.9%
Lakehead Mines Limited	38.6%
Quintette Coal Limited	38.25% *
Saxon Coal Limited	50.0% *
Vespar Mines Limited	38.6%

*On completion of sale to the Ruhrkohle Group



DENISON PEOPLE



Top: Alan Menzies, coal miner.
Bottom: Taisto Kreko, mill
compressor operator.



Top: Rick Demille, packer.
Bottom: Heike Engels,
environmentalist.

Top: Robin Miller, assay lab.
technician.
Centre: Patrick Gauthier, plant
maintenance mechanic.
Bottom: Norm Mueller, coal miner.

DENISON MINES LIMITED

CORPORATE HEADQUARTERS

Royal Bank Plaza
Suite 3900, South Tower,
200 Bay Street,
Toronto, Ontario,
Telephone (416) 865-1991
Telex 065-24135 (Denmines Tor)

Mailing Address:
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CALGARY OFFICE

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Telephone (403) 269-4327
Telex 038-25739 (Denmines Clg)

DENISON MINES (U.S.) INCORPORATED

1776 Lincoln Street,
Suite 810,
Denver, Colorado, 80203,
Telephone (303) 839-5239
Telex 004-5762 (Denmines Dvr)

REGISTRAR AND TRANSFER AGENT

Guaranty Trust Company of Canada,
Toronto, Ontario;
Montreal, Quebec;
Calgary, Alberta.

AUDITORS

Coopers & Lybrand,
Toronto, Ontario.

BANKERS

The Royal Bank of Canada,
Toronto, Ontario.

SOLICITORS

Fraser & Beatty,
Toronto, Ontario.

DENISON PEOPLE



Top: Alan Menzies, coal miner.
Bottom: Taisto Kreko, mill
compressor operator.

OFFICERS AND CORPORATE STAFF

Stephen B. Roman, K.C.S.G., LL.D.
Chairman of the Board

John Kostuik
President

C. H. Frame
*Executive Vice-President,
Mining Operations*

C. D. Parmelee
*Vice-President,
Corporate Affairs*

R. C. Hermann
*Vice-President,
Coal Operations*

S. W. Harapiak
*Vice-President,
Uranium Operations*

A. F. Risso
*Vice-President,
Administration*

E. L. Evans
Director of Exploration

K. H. Bates
Secretary

E. B. McConkey
*Vice-President,
Finance*

M. J. de Bastiani
*Vice-President,
Technical Operations*

L. L. Samoil
*Vice-President,
Oil and Gas Operations*

W. N. O'Brien
*Vice-President,
Minerals and Marketing*

V. L. Chapin
Vice-President

R. K. McAlpine
Controller

DIRECTORS

Donald S. Anderson

Charles F. W. Burns

F. H. Jowsey

E. B. McConkey

John A. Mullin, Q.C.

John C. Puhky

George Rowe, Jr.

M. J. de Bastiani

George D. Gould

John Kostuik

A. Hamilton McDonald

Joseph A. Patrick

Stephen B. Roman

B. E. Willoughby

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AUDITORS

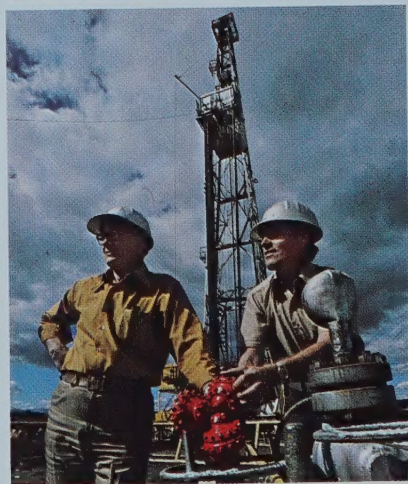
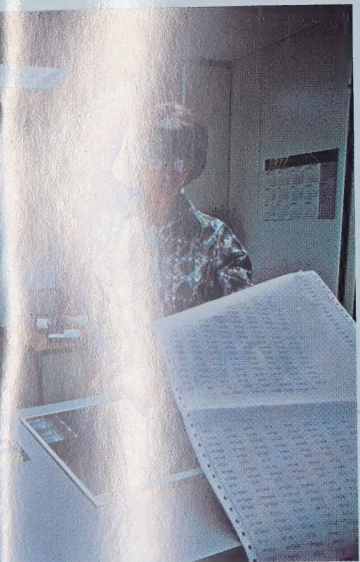
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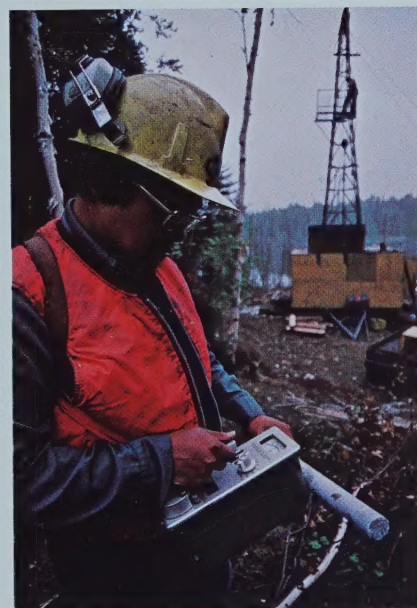


Top: Claire Paarsalu, computer operator.
Bottom: Exploration geologists, Katia Papasoff and Ellen Biasucci.

Top: David Arsenault, student labourer.
Bottom: Oil drilling personnel.

Top: Alex Pearson and Dr. E.L. Evans
Bottom: Ivan Delas and John Perry, coal exploration geologists.

Top: Betty Chen, exploration geologist.
Bottom: Leo Samoil and Alastair Fraser.



Don Wight and Gary Wannamaker, packers.

Top: Ron Blackmore, assay lab. chemist.
Bottom: Bob Quenneville, mechanic.

Top: Allen J. Ready, mill operator.
Bottom: Alan Chan, exploration geologist.

Top: Hubert Folkes, trades instructor; Bob Tremblay, student.

Bottom: Exploration geologists, Betty Chen, Marc Gauthier and Shigeaki Tsukagoshi.

